

ATTORNEY DOCKET NO. 042715-5021

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:	)	
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Yasushi NIITSU, et al.	)	
	)	
Application No.: 10/586,148	)	Group Art Unit: Unassigned
	)	
Filed: July 14, 2006	)	Examiner: Unassigned
	)	
For: <b>STRESS MEASURING METHOD</b>	)	
<b>AND INSTRUMENT</b>	)	

Commissioner for Patents  
**MAIL STOP PCT**

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)**

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicants bring to the attention of the Examiner the documents listed on the attached PTO-1449. This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

A copy of each listed foreign document is attached for the Examiner's consideration. Applicants respectfully request that the Examiner consider the listed documents and evidence that consideration by making appropriate notations on the attached form.

The following are listed on the accompanying PTO-1449 and are in a language other than English:

- a. JP 4-70582: The relevance of this document can be understood from the corresponding U.S. Patent No. 4,850,710, which is also attached, and the figures therein.
- b. JP 10-153500: The relevance of this document can be understood from the English language abstract attached thereto and the figures therein.
- c. G. Qin et al., "Measurement of Stresses in Silicon Wafer with Infrared Photoelastic Method": The relevance of this document can be understood from the discussion at page 6 of the present application and the figures therein.

d. Kenji Gomi et al., "Residual Stress Evaluation of GaAs Wafer by Infrared Laser Photoelasticity": The relevance of this document can be understood from the English language abstract attached thereto and the figures therein.

e. Kenji Gomi et al., "Influence of Crystalline Orientation on Photoelastic Property of Si Single Crystal": The relevance of this document can be understood from the English language abstract attached thereto and the figures therein.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that the listed documents are material or constitute "prior art." If it should be determined that the listed documents do not constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents. Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 50-0310.

Respectfully submitted,

**MORGAN, LEWIS & BOCKIUS LLP**



Robert J. Goodell, Reg. No. 41,040

Date: April 5, 2007

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<b>INFORMATION DISCLOSURE CITATION</b> Page 1 of 2 <b>PTO Form 1449</b>	Attorney Docket No. 042715-5021	Serial No. 10/586,148
	Applicants Yasushi NIITSU, et al.	
	Filing Date July 14, 2006	Group Unassigned

### U.S. PATENT DOCUMENTS

*Examiner Initial	Document Number	Date	Name	Class	Sub Class	Filing Date
/LGL/	4,850,710	July 25, 1989	Mochida et al.			Sept. 25, 1987

### FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Sub Class	Translation	
						YES	NO
/LGL/	4-70582-B2	Nov. 11, 1992	Japan				X
/LGL/	2713190-B2	Oct. 31, 1997	Japan			X	
/LGL/	10-153500-A	June 9, 1998	Japan			Abstract	

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

/LGL/	S.R. Lederhandler, "Infrared Studies of Birefringence in Silicon," <i>Journal of Applied Physics</i> , Vol. 30, No. 11, November 1959, pp. 1631-1638.
/LGL/	Kazuhiro Date, "Stress Measurement with High Sensitivity in Wafer Using Infrared Photoelasticity," <i>Advances in Electronic Packaging</i> , Vol. 2, 1992, pp. 985-989.
/LGL/	R.O. DeNicola et al., "Effect of Growth Parameters on the Residual Stress and Dislocation Density of Czochralski-Grown Silicon Crystals," <i>Journal of Applied Physics</i> , Vol. 42, No. 11, October 1971, pp. 4262-4270.
/LGL/	P. Dobrilla et al., "Optical Mapping of Residual Stress in Czochralski Grown GaAs," <i>Applied Physics Letters</i> , Vol. 48, No. 19, May 12, 1986, pp. 1303-1305.
/LGL/	G. Qin et al., "Measurement of Stresses in Silicon Wafer with Infrared Photoelastic Method," <i>Chin. J. Infrared and Millimeter Waves</i> , Vol. 7, No. 2, 1987, pp. 139-144.
/LGL/	M. Yamada et al., "Quantitative Photoelastic Characterization of Residual Strain and its Correlation with Dislocation Density Profile in Semi-insulating LEC-grown GaAs Wafers," <i>Proc. 7th Conf. on Semi-insulating III-V Materials, Ixtapa, Mexico</i> , 1992, pp. 201-210.

Examiner /Layla G. Lauchman/	Date Considered 10/13/2009
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

<b>INFORMATION DISCLOSURE CITATION</b> Page 2 of 2 <b>PTO Form 1449</b>	Attorney Docket No. 042715-5021	Serial No. 10/586,148
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<b>U.S. PATENT DOCUMENTS</b>
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*Examiner Initial	Document Number	Date	Name	Class	Sub Class	Filing Date

<b>FOREIGN PATENT DOCUMENTS</b>
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Document Number	Date	Country	Class	Sub Class	Translation YES NO	

<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>
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/LGL/	R.D. Clayton et al., "Scanning Birefringence Mapping of Semi-insulating GaAs Wafers," <i>Proc. 7th Conf. on Semi-insulating III-V Materials, Ixtapa, Mexico</i> , 1992, pp. 211-216.
/LGL/	Masayoshi Yamada, "High-sensitivity Computer-controlled Infrared Polariscopes" <i>Review of Scientific Instruments</i> , Vol. 64, No. 7, July 1993, pp. 1815-1821.
/LGL/	Hancheng Liang et al., "A New Method of Determining the Stress State in Microelectronic Materials," <i>Measurement Science and Technology</i> , Vol. 7, 1996, pp. 102-105.
/LGL/	Kenji Gomi et al., "The Influence of Crystalline Orientation on the Photoelastic Property of {100} Gallium Arsenide Wafer," <i>JSME International Journal, Series A</i> , Vol. 41, No. 2, 1998, pp. 274-279.
/LGL/	Kenji Gomi et al., "Residual Stress Evaluation of GaAs Wafer by Infrared Laser Photoelasticity," No. 98-1332, pp. 2143-2148. 10/1999
/LGL/	Kenji Gomi et al., "Influence of Crystalline Orientation on Photoelastic Property of Si Single Crystal," No. 96-0641, pp. 2651-2656. v. 1.41, No. 2, 1998

Examiner /Layla G. Lauchman/	Date Considered 10/13/2009
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	